

What is claimed is:

1 1. A method for programming at least a portion of a multiplexed vehicle network,
2 comprising:
3 receiving user input via an intuitive graphical user interface;
4 identifying the layout of a vehicle network based on the user input;
5 defining logical relationships between components of the vehicle network based on the
6 user input;
7 compiling network data based on the layout and logical relationships; and
8 storing the compiled data.

1 2. A method according to claim 1 wherein the step of identifying the layout of the
2 vehicle network includes identifying a vehicle network type.

1 3. A method according to claim 2 wherein the step of compiling is based on the
2 vehicle network type.

1 4. A method according to claim 1 wherein the step of identifying the layout of the
2 vehicle network includes identifying a network node.

1 5. A method according to claim 4 wherein the step of identifying the layout of the
2 vehicle network further includes identifying a component to provide input to the network node.

1 6. A method according to claim 4 wherein the step of identifying the layout of the
2 vehicle network further includes identifying a component to receive output from the network
3 node.

1 7. A method according to claim 1 wherein the step of defining logical relationships
2 includes:
3 identifying a command;
4 selecting an input; and
5 assigning the command to the input.

1 8. A method according to claim 1 wherein the step of defining logical relationships
2 includes:
3 identifying a first command;
4 selecting an output; and
5 assigning the first command to the output.

1 9. A method according to claim 8 wherein the step of defining logical relationships
2 further includes:
3 identifying a second command;
4 identifying a relationship between the first and second commands; and
5 assigning the second command and the relationship to the output.

1 10. A method according to claim 1 further including the step transmitting at least a

- 2 portion of the stored data and instructions to the vehicle network controller.

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1 11. An apparatus for programming at least a portion of a multiplexed vehicle network,
2 comprising:
3 means for receiving user input via an intuitive graphical user interface;
4 means for identifying the layout of a vehicle network based on the user input;
5 means for defining logical relationships between components of the vehicle network
6 based on the user input;
7 means for compiling network data based on the layout and logical relationships; and
8 means for storing the compiled data.

1 12. An apparatus according to claim 11 wherein the means for identifying the layout
2 of the vehicle network identifies a vehicle network type.

1 13. An apparatus according to claim 12 wherein the means for compiling operates
2 based on the vehicle network type.

1 14. An apparatus according to claim 11 wherein the means for identifying the layout
2 of the vehicle network identifies a network node.

1 15. An apparatus according to claim 14 wherein the means for identifying the layout
2 of the vehicle network further identifies a component to provide input to the network node.

1 16. An apparatus according to claim 14 wherein the step of identifying the layout of

2 the vehicle network further identifies a component to receive output from the network node.

1 17. An apparatus according to claim 11 wherein the means for defining logical
2 relationships includes:

3 means for identifying a command;

4 means for selecting an input; and

5 means for assigning the command to the input.

1 18. An apparatus according to claim 11 wherein the means for defining logical
2 relationships includes:

3 means for identifying a first command;

4 means for selecting an output; and

5 means for assigning the first command to the output.

1 19. An apparatus according to claim 18 wherein the means for defining logical
2 relationships further includes:

3 means for identifying a second command;

4 means for identifying a relationship between the first and second commands; and

5 means for assigning the second command and the relationship to the output.

1 20. An apparatus according to claim 11 further including means for transmitting at
2 least a portion of the stored data and instructions to the vehicle network controller.

1 21. An apparatus for programming at least a portion of a multiplexed vehicle network,
2 the apparatus comprising:
3 a processor;
4 a memory connected to said processor storing a program to control the operation of said
5 processor;
6 the processor operative with the program in the memory to:
7 receive user input via an intuitive graphical user interface;
8 identify the layout of a vehicle network based on the user input;
9 define logical relationships between components of the vehicle network based on
10 the user input;
11 compile network data based on the layout and logical relationships; and
12 store the compiled data.

1 22. An apparatus according to claim 21, wherein the processor is further operative
2 with the program in the memory to identify a vehicle network type.

1 23. An apparatus according to claim 22, wherein the step of compiling is based on the
2 vehicle network type.

1 24. An apparatus according to claim 21, wherein the processor is further operative
2 with the program in the memory to identify a network node.

1 25. An apparatus according to claim 24, wherein the processor is further operative
2 with the program in the memory to identify a component to provide input to the network node.

1 26. An apparatus according to claim 24, wherein the processor is further operative
2 with the program in the memory to identify a component to receive output from the network
3 node.

1 27. An apparatus according to claim 21, wherein the processor is further operative
2 with the program in the memory to:

3 identify a command;
4 select an input; and
5 assign the command to the input.

1 28. An apparatus according to claim 21, wherein the processor is further operative
2 with the program in the memory to:

3 identify a first command;
4 select an output; and
5 assign the first command to the output.

1 29. An apparatus according to claim 28, wherein the processor is further operative
2 with the program in the memory to:

3 identify a second command;

4 identify a relationship between the first command and the second command; and
5 assign the second command and the relationship to the output.

1 30. An apparatus according to claim 21, wherein the processor is further operative
2 with the program in the memory to transmit at least a portion of the stored data and instructions
3 to the vehicle network controller.

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1 31. A computer-readable storage medium encoded with processing instructions for
2 implementing method for programming at least a portion of a multiplexed vehicle network, the
3 processing instructions for directing a computer to perform the steps of:
4 receiving user input via an intuitive graphical user interface;
5 identifying the layout of a vehicle network based on the user input;
6 defining logical relationships between components of the vehicle network based on the
7 user input;
8 compiling network data based on the layout and logical relationships; and
9 storing the compiled data.